```
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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  JUL 02  LMEDLINE coverage updated
 NEWS  3  JUL 02  SCISEARCH enhanced with complete author names
 NEWS  4  JUL 02  CHEMCATS accession numbers revised
 NEWS  5  JUL 02  CA/CAplus enhanced with utility model patents from China
 NEWS  6  JUL 16  CAplus enhanced with French and German abstracts
 NEWS  7  JUL 18  CA/CAplus patent coverage enhanced
 NEWS  8  JUL 26  USPATFULL/USPAT2 enhanced with IPC reclassification
 NEWS  9  JUL 30  USGENE now available on STN
 NEWS 10  AUG 06  CAS REGISTRY enhanced with new experimental property tags
 NEWS 11  AUG 06  FSTA enhanced with new thesaurus edition
 NEWS 12  AUG 13  CA/CAplus enhanced with additional kind codes for granted
                  patents
 NEWS 13  AUG 20  CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS 14  AUG 27  Full-text patent databases enhanced with predefined
                  patent family display formats from INPADOCDB
 NEWS 15  AUG 27  USPATOLD now available on STN
 NEWS 16  AUG 28  CAS REGISTRY enhanced with additional experimental
                  spectral property data
 NEWS 17  SEP 07  STN AnaVist, Version 2.0, now available with Derwent
                  World Patents Index
 NEWS 18  SEP 13  FORIS renamed to SOFIS
 NEWS 19  SEP 13  INPADOCDB enhanced with monthly SDI frequency
 NEWS 20  SEP 17  CA/CAplus enhanced with printed CA page images from
                  1967-1998
 NEWS 21  SEP 17  CAplus coverage extended to include traditional medicine
                  patents
 NEWS 22  SEP 24  EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 23  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                  Zentralblatt
 NEWS 24  OCT 19  BEILSTEIN updated with new compounds

 NEWS EXPRESS  19 SEPTEMBER 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 13:41:29 ON 22 OCT 2007

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 13:42:11 ON 22 OCT 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 OCT 2007 HIGHEST RN 951118-42-6
DICTIONARY FILE UPDATES: 19 OCT 2007 HIGHEST RN 951118-42-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

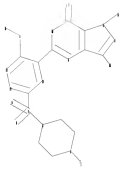
TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

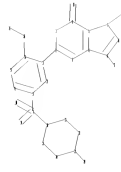
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10 series\10583335\10583335a.str





chain nodes :
10 17 18 19 26 27 28 29 31
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 20 21 22 23 24 25
chain bonds :
2-11 4-10 7-28 9-27 13-17 16-26 17-18 17-19 17-20 23-29 26-31
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13 13-14 14-15
15-16 20-21 20-25 21-22 22-23 23-24 24-25
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 4-10 5-6 5-7 6-9 7-8 7-28 8-9 9-27 13-17 16-26
17-18 17-19 17-20 20-21 20-25 21-22 22-23 23-24 23-29 24-25 26-31
exact bonds :
2-11
normalized bonds :

```
11-12  11-16  12-13  13-14  14-15  15-16


G1:H,Ak,Cb

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:CLASS
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:CLASS  18:CLASS  19:CLASS
20:Atom  21:Atom  22:Atom  23:Atom  24:Atom  25:Atom  26:CLASS  27:CLASS  28:CLASS
29:CLASS  31:CLASS



L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l1
SAMPLE SEARCH INITIATED 13:43:09 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       89 TO ITERATE

100.0% PROCESSED       89 ITERATIONS                                 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         1214 TO     2346
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 13:43:13 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     1639 TO ITERATE

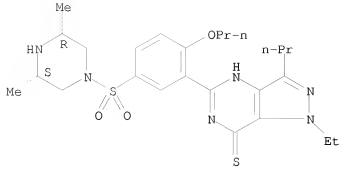
100.0% PROCESSED     1639 ITERATIONS                                25 ANSWERS
SEARCH TIME: 00.00.01

L3           25 SEA SSS FUL L1

=> d scan

L3   25 ANSWERS   REGISTRY  COPYRIGHT 2007 ACS on STN
IN   Piperazine, 1-[[3-(1-ethyl-4,7-dihydro-3-propyl-7-thioxo-1H-pyrazolo[4,3-
     d]pyrimidin-5-yl)-4-propoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel-
     (9CI)
MF   C25 H36 N6 O3 S2

Relative stereochemistry.
```

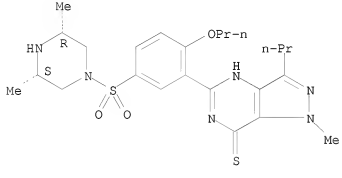


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

L3 25 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-propoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI)
MF C24 H34 N6 O3 S2

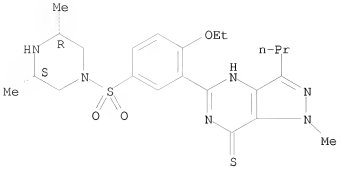
Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

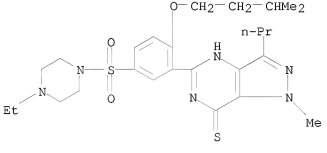
L3 25 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI)
MF C23 H32 N6 O3 S2
CI COM

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 25 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-(3-methylbutoxy)phenyl]sulfonyl]-4-ethyl- (9CI)
MF C26 H38 N6 O3 S2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	173.00	173.21

FILE 'CAPLUS' ENTERED AT 13:43:52 ON 22 OCT 2007
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FILE COVERS 1907 - 22 Oct 2007 VOL 147 ISS 18
FILE LAST UPDATED: 21 Oct 2007 (20071021/ED)

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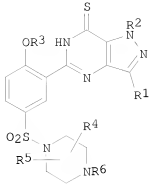
=> s l3
L4 4 L3

=> d l4 1-4 ibib abs hitstr

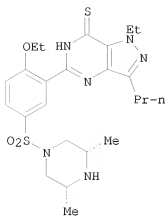
L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:570896 CAPLUS
DOCUMENT NUMBER: 143:97390
TITLE: Preparation of pyrazolopyrimidinethione derivatives for treatment of impotence
INVENTOR(S): Li, Shuxin; Ren, Jianping; Zhao, Yanjin; Lv, Qiujun; Guo, Jinhua
PATENT ASSIGNEE(S): The Institute of Radiation Medicine, Academy of Miilitary Medical Sciences Pla, Peop. Rep. China
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005058899	A1	20050630	WO 2004-CN1312	20041118
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1629163	A	20050622	CN 2003-10118481	20031218
EP 1695976	A1	20060830	EP 2004-797343	20041118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
IN 2006MN00737	A	20070330	IN 2006-MN737	20060623
US 2007219220	A1	20070920	US 2007-583335	20070215
PRIORITY APPLN. INFO.:			CN 2003-10118481 A	20031218
			WO 2004-CN1312 W	20041118

OTHER SOURCE(S): CASREACT 143:97390; MARPAT 143:97390
GI



I



II

AB Title compds. represented by the formula I [wherein R1-R3 = independently ((cyclo)alkoxy)alkyl, alkenyl or aryl; R4 = alkyl, alkenyl, (cyclo)alkoxy, aryl; R5 = H, alkyl, alkenyl, (cyclo)alkoxy, aryl; R6 = H, (cyclo)alkyl, alkenyl, alkylcarbonyl; and pharmaceutically acceptable salts or solvates thereof] were prepared for treatment of impotence. For example, II was given in a multi-step synthesis starting from 4-amino-1-ethyl-3-propylpyrazole-5-carboxamide. I showed enhanced erectile response in rats similar to that of Sildenafil. Thus, I and their pharmaceutical comps. are useful for the treatment of impotence and sexlessness, having high selectivity over PDE V, long action time, less side reactions, and no side effects of blood pressure decreasing and heart rate increasing.

IT 856190-47-1P

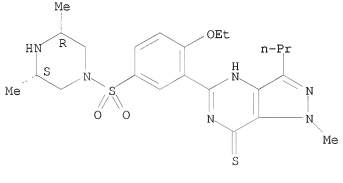
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrazolopyrimidinethione derivs. for treatment of impotence)

RN 856190-47-1 CAPLUS

CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



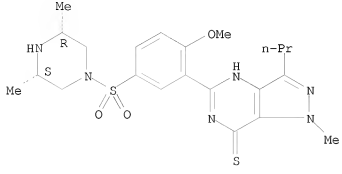
IT 856190-48-2P 856190-49-3P 856190-50-6P 856190-51-7P 856190-56-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrazolopyrimidinethione derivs. for treatment of impotence)

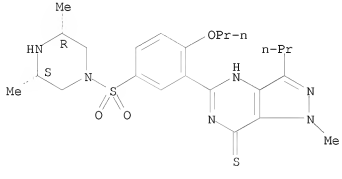
RN 856190-48-2 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



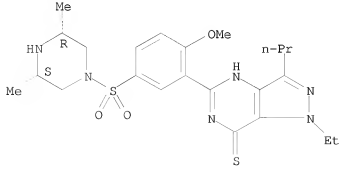
RN 856190-49-3 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-propoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



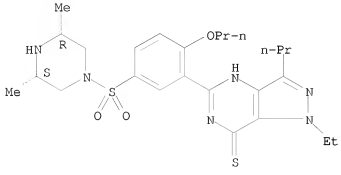
RN 856190-50-6 CAPLUS
CN Piperazine, 1-[[3-(1-ethyl-4,7-dihydro-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 856190-51-7 CAPLUS
CN Piperazine, 1-[[3-(1-ethyl-4,7-dihydro-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-propoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

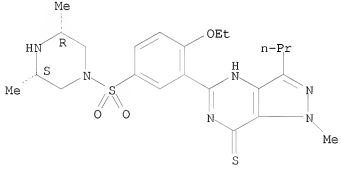


RN 856190-56-2 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel-, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (9CI) (CA INDEX NAME)

CM 1

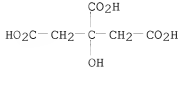
CRN 856190-47-1
CMF C23 H32 N6 O3 S2

Relative stereochemistry.



CM 2

CRN 77-92-9
CMF C6 H8 O7



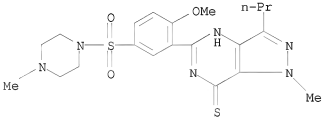
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:565628 CAPLUS
DOCUMENT NUMBER: 143:211579
TITLE: Low-energy collision-induced dissociation of sildenafil thiono analogues: Gas-phase intramolecular nucleophilic substitution through ion-neutral complexes between a cationic substrate and a thione-containing neutral nucleophile
AUTHOR(S): Lee, Jaeick; Yoo, Hye Hyan; Kang, Min-Yung; Kim, Dong-Hyun
CORPORATE SOURCE: Bioanalysis and Biotransformation Research Center, Korea Institute of Science and Technology, Seoul, S. Korea
SOURCE: Rapid Communications in Mass Spectrometry (2005), 19(12), 1767-1770
CODEN: RCMSEF; ISSN: 0951-4198
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

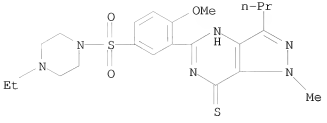
AB Collisional-activation mass spectrometry of sildenafil [i.e., 1-[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-(methyl)piperazine] and its thioxo analogs [e.g., 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-(methyl)piperazine] were reported.

IT 479073-72-8 479073-74-0 479073-79-5
479073-80-8 479073-86-4
RL: PRP (Properties)
(study of low energy collision-induced dissociation of sildenafil and its thioxo analogs and study of gas-phase intramol. nucleophilic substitution through ion-neutral complexes between cationic substrate and thione-containing neutral nucleophile)

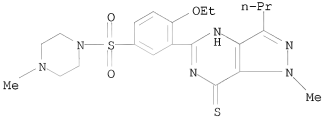
RN 479073-72-8 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxyphenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



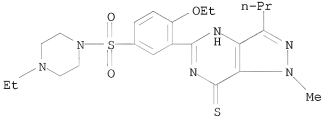
RN 479073-74-0 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxyphenyl]sulfonyl]-4-ethyl- (9CI) (CA INDEX NAME)



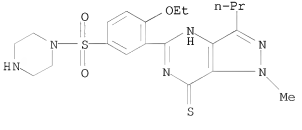
RN 479073-79-5 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 479073-80-8 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-ethyl- (9CI) (CA INDEX NAME)



RN 479073-86-4 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]- (9CI) (CA INDEX NAME)



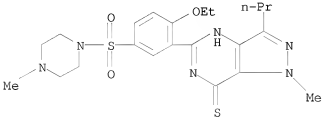
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:524375 CAPLUS

DOCUMENT NUMBER: 141:420374
TITLE: Effects of a new selective phosphodiesterase type 5 inhibitor, KJH-1002, on the relaxation of rabbit corpus cavernosum tissue
AUTHOR(S): Cho, Eun Young; Chung, Sung-Hyun; Kim, Joong Hyup; Kim, Dong-Kyun; Jin, Changbae
CORPORATE SOURCE: Bioanalysis & Biotransformation Research Center, Korea Institute of Science and Technology, Seoul, 130-650, S. Korea
SOURCE: Journal of Applied Pharmacology (2003), 11(4), 232-237 CODEN: JOAPA6; ISSN: 1225-6110
PUBLISHER: Korean Society of Applied Pharmacology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The present study examined functional effects of a new selective phosphodiesterase type 5 inhibitor, 1-[4-ethoxy-3-(6,7-dihydro-1-methyl-7-thioxo-3-propyl-1H-pyrazolo[4,3]pyrimidin-5-yl)phenylsulfonyl]-4-Me piperazine (KJH-1002), in the isolated rabbit corpus cavernosum (RCC). Relaxing effects of KJH-1002 were also compared with those of sildenafil, which is currently used as an oral therapy for penile erectile dysfunction. In the isolated RCC precontracted with phenylephrine, both KJH-1002 and sildenafil in the concentration range of 1 to 1000 nM, produced a comparable potentiation of the elec. field stimulation-induced relaxation in a concentration-dependent manner. In the sodium nitroprusside (SNP)-induced relaxation, the IC50 values, concns. of SNP required to produce a 50% relaxation of the phenylephrine-induced contraction, were significantly decreased to the similar extent by treatments with KJH-1002 and sildenafil. The results suggest that a new selective phosphodiesterase type 5 inhibitor, KJH-1002, has an augmentative effect on penile erection comparable to that of sildenafil and can be useful for the treatment of erectile dysfunction.

IT 479073-79-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(KJH-1002 phosphodiesterase type-5 inhibitor produced relaxing effect on rabbit corpus cavernosum and showed augmentative effect on penile erection comparable to that of sildenafil and may be useful in erectile dysfunction treatment)
RN 479073-79-5 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:977816 CAPLUS
DOCUMENT NUMBER: 138:55978
TITLE: Preparation of novel pyrazolopyrimidinethiones as phosphodiesterase V inhibitors for treating erectile

dysfunction

INVENTOR(S): Kim, Joong-Hyup; Kim, Youseung; Choi, Kyung Il; Kim, Dong Hyun; Nam, Ghilsoo; Seo, Jae Hong

PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea

SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102802	A1	20021227	WO 2002-KR1126	20020614
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2002095286	A	20021226	KR 2001-33382	20010614
AU 2002315822	A1	20030102	AU 2002-315822	20020614
EP 1395593	A1	20040310	EP 2002-741455	20020614
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005505509	T	20050224	JP 2003-506275	20020614
US 2004176371	A1	20040909	US 2003-480191	20031209

PRIORITY APPLN. INFO.: KR 2001-33382 A 20010614
WO 2002-KR1126 W 20020614

OTHER SOURCE(S): CASREACT 138:55978; MARPAT 138:55978

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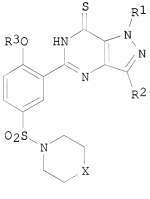


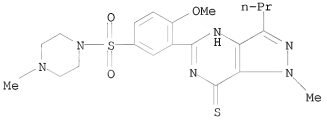
I

AB The title compds. [I; R1, R2 = H, alkyl, cycloalkyl; R3 = alkyl, cycloalkyl or alkenyl which is unsubstituted or substituted; X = O, NR4; R4 = H, alkyl, cycloalkyl or alkenyl which is unsubstituted or substituted with OH or alkoxy] which exhibit higher inhibitory activities against phosphodiesterase V as well as lower inhibitory activities against phosphodiesterase isoenzymes I, III and VI (biol. data given) and therefore are useful for the treatment of erectile dysfunction, were prepared E.g., a 3-step synthesis of I [R1 = Me; R2 = Pr; R3 = Et; X =

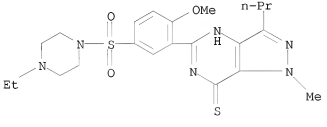
NMe], starting from 5-(2-ethoxyphenyl)-1-methyl-3-propyl-1,6-dihydropyrazolo[4,3-d]pyrimidin-7-one, which showed IC50 of 0.59 nM against PDE V, was given.

IT 479073-72-8P 479073-74-0P 479073-76-2P
479073-79-5P 479073-80-8P 479073-82-0P
479073-86-4P 479073-87-5P 479073-88-6P
479073-90-0P 479073-92-2P 479073-93-3P
479073-94-4P 479073-96-6P 479073-97-7P
479073-98-8P 479074-00-5P 479074-01-6P
479074-02-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of novel pyrazolopyrimidinethiones as PDE5 inhibitors for treating erectile dysfunction)

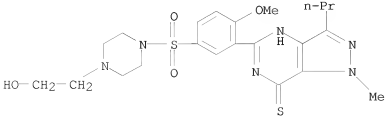
RN 479073-72-8 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxyphenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



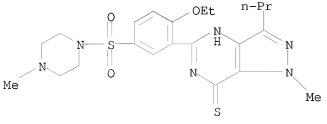
RN 479073-74-0 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxyphenyl]sulfonyl]-4-ethyl- (9CI) (CA INDEX NAME)



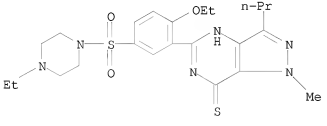
RN 479073-76-2 CAPLUS
CN 1-Piperazineethanol, 4-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxyphenyl]sulfonyl]- (9CI) (CA INDEX NAME)



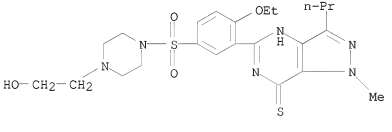
RN 479073-79-5 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



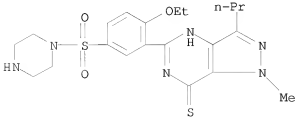
RN 479073-80-8 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-ethyl- (9CI) (CA INDEX NAME)



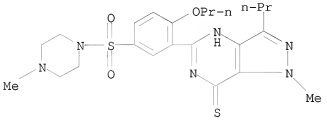
RN 479073-82-0 CAPLUS
CN 1-Piperazineethanol, 4-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]- (9CI) (CA INDEX NAME)



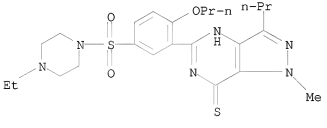
RN 479073-86-4 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]- (9CI) (CA INDEX NAME)



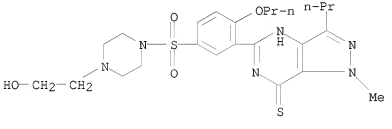
RN 479073-87-5 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-propoxyphenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



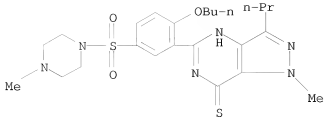
RN 479073-88-6 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-propoxyphenyl]sulfonyl]-4-ethyl- (9CI) (CA INDEX NAME)



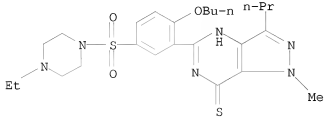
RN 479073-90-0 CAPLUS
CN 1-Piperazineethanol, 4-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-propoxyphenyl]sulfonyl]- (9CI) (CA INDEX NAME)



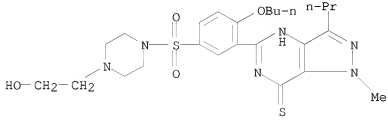
RN 479073-92-2 CAPLUS
CN Piperazine, 1-[[4-butoxy-3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



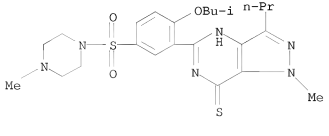
RN 479073-93-3 CAPLUS
CN Piperazine, 1-[[4-butoxy-3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)phenyl]sulfonyl]-4-ethyl- (9CI) (CA INDEX NAME)



RN 479073-94-4 CAPLUS
CN 1-Piperazineethanol, 4-[[4-butoxy-3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)

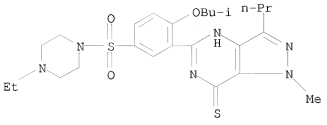


RN 479073-96-6 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-(2-methylpropoxy)phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)

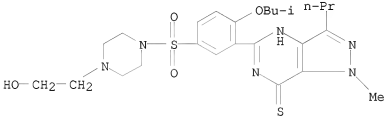


RN 479073-97-7 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-(2-methylpropoxy)phenyl]sulfonyl]-4-ethyl- (9CI) (CA

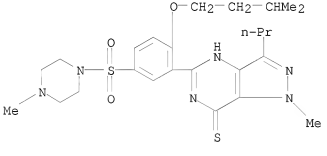
INDEX NAME)



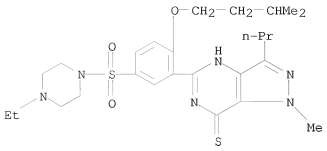
RN 479073-98-8 CAPLUS
CN 1-Piperazineethanol, 4-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-(2-methylpropoxy)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



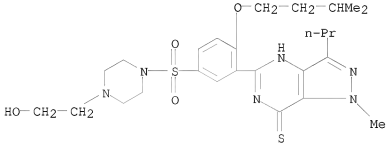
RN 479074-00-5 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-(3-methylbutoxy)phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 479074-01-6 CAPLUS
CN Piperazine, 1-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-(3-methylbutoxy)phenyl]sulfonyl]-4-ethyl- (9CI) (CA INDEX NAME)



RN 479074-02-7 CAPLUS
CN 1-Piperazineethanol, 4-[[3-(4,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-(3-methylbutoxy)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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NEWS  4  JUL 02  CHEMCATS accession numbers revised
NEWS  5  JUL 02  CA/CAplus enhanced with utility model patents from China
NEWS  6  JUL 16  CAplus enhanced with French and German abstracts
NEWS  7  JUL 18  CA/CAplus patent coverage enhanced
NEWS  8  JUL 26  USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS  9  JUL 30  USGENE now available on STN
NEWS 10  AUG 06  CAS REGISTRY enhanced with new experimental property tags
NEWS 11  AUG 06  FSTA enhanced with new thesaurus edition
NEWS 12  AUG 13  CA/CAplus enhanced with additional kind codes for granted
                 patents
NEWS 13  AUG 20  CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 14  AUG 27  Full-text patent databases enhanced with predefined
                 patent family display formats from INPADOCDB
NEWS 15  AUG 27  USPATOLD now available on STN
NEWS 16  AUG 28  CAS REGISTRY enhanced with additional experimental
                 spectral property data
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                 World Patents Index
NEWS 18  SEP 13  FORIS renamed to SOFIS
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NEWS 20  SEP 17  CA/CAplus enhanced with printed CA page images from
                 1967-1998
NEWS 21  SEP 17  CAplus coverage extended to include traditional medicine
                 patents
NEWS 22  SEP 24  EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 23  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                 Zentralblatt
NEWS 24  OCT 19  BEILSTEIN updated with new compounds

NEWS EXPRESS  19 SEPTEMBER 2007:  CURRENT WINDOWS VERSION IS V8.2,
              CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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STRUCTURE FILE UPDATES: 21 OCT 2007 HIGHEST RN 951124-19-9
DICTIONARY FILE UPDATES: 21 OCT 2007 HIGHEST RN 951124-19-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

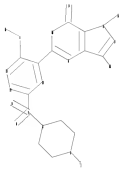
TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

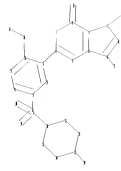
  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10 series\10583335\10583335b.str





chain nodes :
10 17 18 19 26 27 28 29 31
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 20 21 22 23 24 25
chain bonds :
2-11 4-10 7-28 9-27 13-17 16-26 17-18 17-19 17-20 23-29 26-31
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13 13-14 14-15
15-16 20-21 20-25 21-22 22-23 23-24 24-25
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 4-10 5-6 5-7 6-9 7-8 7-28 8-9 9-27 13-17 16-26
17-18 17-19 17-20 20-21 20-25 21-22 22-23 23-24 23-29 24-25 26-31
exact bonds :
2-11
normalized bonds :

11-12 11-16 12-13 13-14 14-15 15-16

G1:H,Ak,Cb

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:CLASS 27:CLASS 28:CLASS
29:CLASS 31:CLASS

L1   STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1   STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 10:03:44 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   89 TO ITERATE

100.0% PROCESSED   89 ITERATIONS   9 ANSWERS
SEARCH TIME: 00.00.01

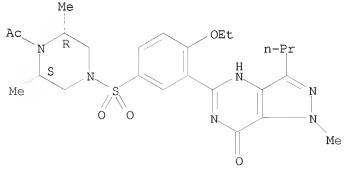
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS: 1214 TO   2346
PROJECTED ANSWERS: 9 TO   360

L2   9 SEA SSS SAM L1

=> d scan

L2   9 ANSWERS   REGISTRY COPYRIGHT 2007 ACS on STN
IN   Piperazine, 1-acetyl-4-[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-
     pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-2,6-dimethyl-,
     (2R,6S)-rel- (9CI)
MF   C25 H34 N6 O5 S

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s l1 full
FULL SEARCH INITIATED 10:04:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1639 TO ITERATE

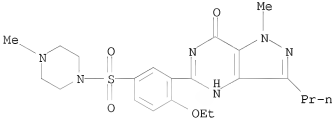
100.0% PROCESSED 1639 ITERATIONS 218 ANSWERS
SEARCH TIME: 00.00.01

L3 218 SEA SSS FUL L1

=> d scan

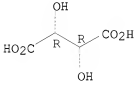
L3 218 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN INDEX NAME NOT YET ASSIGNED
MF C22 H30 N6 O4 S . 1/2 C4 H6 O6

CM 1



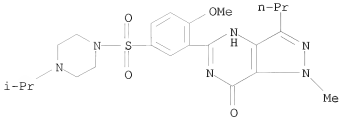
CM 2

Absolute stereochemistry.



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

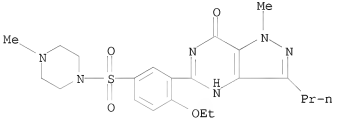
L3 218 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 1,6-dihydro-5-[2-methoxy-5-[[4-(1-methylethyl)-1-piperazinyl]sulfonyl]phenyl]-1-methyl-3-propyl-
MF C23 H32 N6 O4 S



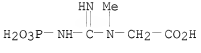
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 218 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, N-[imino(phosphonoamino)methyl]-N-methyl-, compd. with 5-[2-ethoxy-5-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-1,6-dihydro-1-methyl-3-propyl-7H-pyrazolo[4,3-d]pyrimidin-7-one (1:1)
MF C22 H30 N6 O4 S . C4 H10 N3 O5 P

CM 1



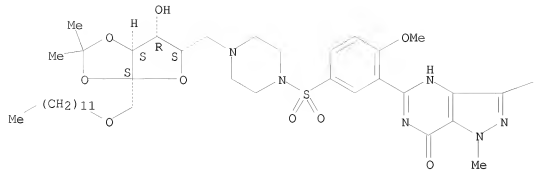
CM 2



L3 218 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN α-L-Sorbofuranose, 6-deoxy-6-[4-[[3-(6,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxyphenyl]sulfonyl]-1-piperazinyl]-1-O-dodecyl-2,3-O-(1-methylethylidene)-, hydrochloride (1:1)
MF C41 H64 N6 O9 S . Cl H

Absolute stereochemistry.

PAGE 1-A



● HCl

PAGE 1-B

Pr-n

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.55	172.76

FILE 'CAPLUS' ENTERED AT 10:04:30 ON 23 OCT 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 23 Oct 2007 VOL 147 ISS 18
FILE LAST UPDATED: 22 Oct 2007 (20071022/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

```
=> s l3
L4         1875 L3

=> s l3 not pd>20031218
           1875 L3
        4864415 PD>20031218
                (PD>20031218)
L5          650 L3 NOT PD>20031218

=> file registry
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       3.42     176.18

FILE 'REGISTRY' ENTERED AT 10:06:07 ON 23 OCT 2007
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES:   21 OCT 2007  HIGHEST RN 951124-19-9
DICTIONARY FILE UPDATES:  21 OCT 2007  HIGHEST RN 951124-19-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10 series\10583335\10583335c.str
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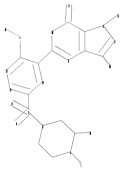
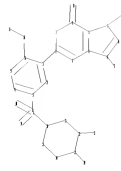
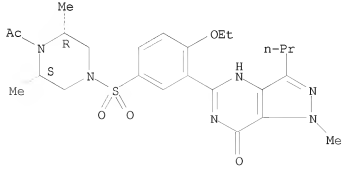




chain nodes :
10 17 18 19 26 27 28 29 31 32
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 20 21 22 23 24 25
chain bonds :
2-11 4-10 7-28 9-27 13-17 16-26 17-18 17-19 17-20 22-32 23-29 26-31
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13 13-14 14-15
15-16 20-21 20-25 21-22 22-23 23-24 24-25
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 4-10 5-6 5-7 6-9 7-8 7-28 8-9 9-27 13-17 16-26
17-18 17-19 17-20 20-21 20-25 21-22 22-23 22-32 23-24 23-29 24-25 26-31
exact bonds :
2-11
normalized bonds :

```
11-12  11-16  12-13  13-14  14-15  15-16


G1:H,Ak,Cb

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:CLASS
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:CLASS  18:CLASS  19:CLASS
20:Atom  21:Atom  22:Atom  23:Atom  24:Atom  25:Atom  26:CLASS  27:CLASS  28:CLASS
29:CLASS  31:CLASS  32:CLASS



L6      STRUCTURE UPLOADED

=> d l6
L6 HAS NO ANSWERS
L6              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l6
SAMPLE SEARCH INITIATED 10:06:28 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       89 TO ITERATE

100.0% PROCESSED       89 ITERATIONS                                 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:         1214 TO     2346
PROJECTED ANSWERS:               1 TO       80

L7            1 SEA SSS SAM L6

=> d scan

L7   1 ANSWERS   REGISTRY  COPYRIGHT 2007 ACS on STN
IN   Piperazine, 1-acetyl-4-[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-
     pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-2,6-dimethyl-,
     (2R,6S)-rel- (9CI)
MF   C25 H34 N6 O5 S

Relative stereochemistry.
```



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> s l6 full
FULL SEARCH INITIATED 10:07:01 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1639 TO ITERATE

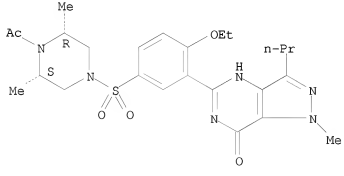
100.0% PROCESSED 1639 ITERATIONS 6 ANSWERS
SEARCH TIME: 00.00.01

L8 6 SEA SSS FUL L6

=> d scan

L8 6 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Piperazine, 1-acetyl-4-[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-2,6-dimethyl-, (2R,6S)-rel- (9CI)
MF C25 H34 N6 O5 S

Relative stereochemistry.

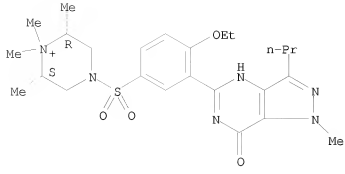


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

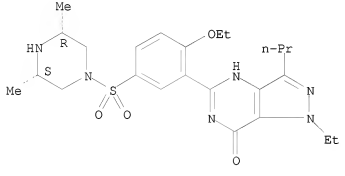
L8 6 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Piperazinium, 4-[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-1,1,2,6-tetramethyl-, (2R,6S)-rel- (9CI)
MF C25 H37 N6 O4 S

Relative stereochemistry.



L8 6 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Piperazine, 1-[[4-ethoxy-3-(1-ethyl-4,7-dihydro-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)phenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI)
MF C24 H34 N6 O4 S

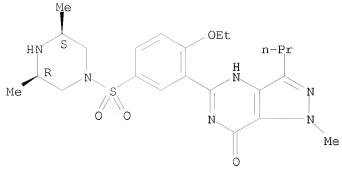
Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L8 6 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel-
MF C23 H32 N6 O4 S

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.55	348.73

FILE 'CAPLUS' ENTERED AT 10:07:26 ON 23 OCT 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 23 Oct 2007 VOL 147 ISS 18
FILE LAST UPDATED: 22 Oct 2007 (20071022/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l8
L9 8 L8

=> d l9 1-8 ibib abs hitstr

L9 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:828226 CAPLUS
TITLE: Use of liquid chromatography-mass spectrometry and a chemical cleavage reaction for the structure elucidation of a new sildenafil analogue detected as an adulterant in an herbal dietary supplement
AUTHOR(S): Reepmeyer, John C.; Woodruff, Jeffrey T.

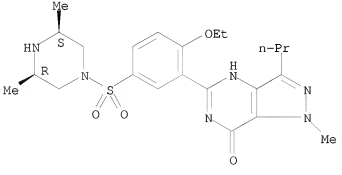
CORPORATE SOURCE: Division of Pharmaceutical Analysis, US Food and Drug Administration, St. Louis, MO, 63101, USA
SOURCE: Journal of Pharmaceutical and Biomedical Analysis (2007), 44(4), 887-893
CODEN: JPBADA; ISSN: 0731-7085
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An herbal dietary supplement, marketed as a natural product for the enhancement of sexual function, was analyzed by HPLC with photodiode array and mass spectral detection and found to contain a compound related to the synthetic phosphodiesterase-5 (PDE-5) inhibitors. Based on UV spectra, mass spectra and direct infusion MSn, the structure of the compound was tentatively identified as a sildenafil analog in which the sulfonyl group had been replaced with an acetyl group. This new analog is similar to acetildenafil, a previously reported sildenafil analog, but differs in that it contains an N-Me group where acetildenafil contains an N-Et group. The structure of the unknown was unequivocally established by chemical cleavage of the phenacylamine group of the mol. to generate N-methylpiperazine; other cleavage products matched those generated from acetildenafil. Since the new compound has one less CH2 group than acetildenafil, it was named nor-acetildenafil.

IT 496835-35-9
RL: ANT (Analyte); ANST (Analytical study)
(use of liquid chromatog.-mass spectrometry and a chemical cleavage reaction for structure elucidation of a new sildenafil analog detected as an adulterant in an herbal dietary supplement)

RN 496835-35-9 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:646673 CAPLUS
DOCUMENT NUMBER: 147:125726
TITLE: Medicine containing aildenafil for treating sexual impotence
INVENTOR(S): Liu, Baoshun
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1977846	A	20070613	CN 2005-10127647	20051206

PRIORITY APPLN. INFO.: CN 2005-10127647 20051206

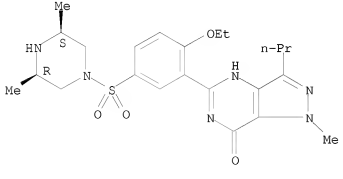
AB The title medicine contains aildenafil 15-120 mg (0.1-3 mg/kg body weight), especially 30-120 mg (0.3-3 mg/kg body weight), 30-90 mg/kg (0.3-1.8 mg/kg body weight), and 30-60 mg (0.3-1.2 mg/kg body weight). The dosage form of the medicine can be tablet, capsule, powder, granule, crystal, solution, suspension, syrup, tincture, chewing formulation, nasal spray, nose drop, gel, cream, ointment, emulsion, etc.

IT 496835-35-9
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medicine containing aildenafil for treating sexual impotence)

RN 496835-35-9 CAPLUS

CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel-
(CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2007:422822 CAPLUS
DOCUMENT NUMBER:	147:63259
TITLE:	Liquid chromatography tandem mass spectrometry assay to determine the pharmacokinetics of aildenafil in human plasma
AUTHOR(S):	Wang, Jiang; Jiang, Yao; Wang, Yingwu; Zhao, Xia; Cui, Yimin; Gu, Jingkai
CORPORATE SOURCE:	Research Center for Drug Metabolism, College of Life Science, Jilin University, Changchun, 130023, Peop. Rep. China
SOURCE:	Journal of Pharmaceutical and Biomedical Analysis (2007), 44(1), 231-235 CODEN: JPBADA; ISSN: 0731-7085
PUBLISHER:	Elsevier B.V.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB A simple, sensitive and specific liquid chromatog./tandem mass spectrometry method for the quantitation of aildenafil, a new phosphodiesterase V inhibitor, in human plasma is presented. The analyte and internal standard, sildenafil, were extracted by a one-step liquid-liquid extraction in alkaline conditions

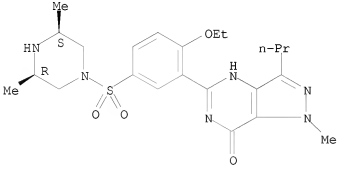
and separated on a C18 column using ammonia:10mM ammonium acetate buffer:methanol (0.1:15:85, volume/volume/v) as the mobile phase. The detection by an API 4000 triple quadrupole mass spectrometer in multiple-reaction monitoring mode was completed within 2.5 min. The calibration curve exhibited a linear dynamic range of 0.05 - 100 ng/mL with a 10 pg/mL limit of detection. The intra- and inter-day precisions measured as relative standard deviation were within 8.04% and 5.72%, resp. This method has been used in a pharmacokinetic study of aildenafil in healthy male volunteers each given an oral administration of one of the three dosages.

IT 496835-35-9, Aildenafil
RL: BSU (Biological study, unclassified); PKT (Pharmacokinetics); BIOL (Biological study)
(liquid chromatog. tandem mass spectrometry assay to determine the pharmacokinetics of aildenafil in human plasma)

RN 496835-35-9 CAPLUS

CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:345344 CAPLUS

DOCUMENT NUMBER: 147:39501

TITLE: Structure elucidation of a novel analogue of sildenafil detected as an adulterant in an herbal dietary supplement

AUTHOR(S): Reepmeyer, John C.; Woodruff, Jeffrey T.; 'Avignon, D. Andre

CORPORATE SOURCE: Division of Pharmaceutical Analysis, US Food and Drug Administration, St. Louis, MO, 63101, USA

SOURCE: Journal of Pharmaceutical and Biomedical Analysis (2007), 43(5), 1615-1621
CODEN: JPBADA; ISSN: 0731-7085

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new analog of sildenafil was detected in an herbal dietary supplement, which was sold over the internet and promoted as a product for the enhancement of sexual performance. The structure of the compound was established using LC-MS, UV spectroscopy, MS-MS, and NMR. In addition, the compound was cleaved at its sulfonamide S-N bond yielding a sulfonic acid and an amine, which were independently characterized using LC-MS, GC-MS, and derivatization. The compound, named methisosildenafil, is a novel

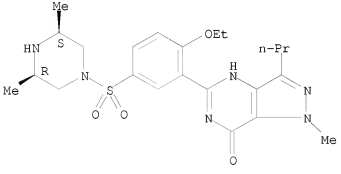
synthetic analog of sildenafil in which the N-methylpiperazine moiety has been replaced with 2,6-dimethylpiperazine.

IT 496835-35-9, Methisosildenafil
RL: ANT (Analyte); ANST (Analytical study)
(structure elucidation of a novel analog of sildenafil detected as an adulterant in an herbal dietary supplement)

RN 496835-35-9 CAPLUS

CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:570896 CAPLUS
DOCUMENT NUMBER: 143:97390
TITLE: Preparation of pyrazolopyrimidinethione derivatives for treatment of impotence
INVENTOR(S): Li, Shuxin; Ren, Jianping; Zhao, Yanjin; Lv, Qiujun; Guo, Jinhua
PATENT ASSIGNEE(S): The Institute of Radiation Medicine, Academy of Miilitary Medical Sciences Pla, Peop. Rep. China
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005058899	A1	20050630	WO 2004-CN1312	20041118
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1629163	A	20050622	CN 2003-10118481	20031218
EP 1695976	A1	20060830	EP 2004-797343	20041118

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

IN	2006MN00737	A	20070330	IN	2006-MN737		20060623
US	2007219220	A1	20070920	US	2007-583335		20070215
PRIORITY APPLN. INFO.:				CN	2003-10118481	A	20031218
				WO	2004-CN1312	W	20041118

OTHER SOURCE(S): CASREACT 143:97390; MARPAT 143:97390

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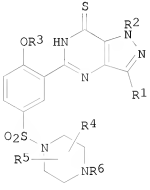

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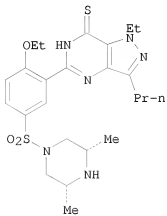


II

AB Title compds. represented by the formula I [wherein R1-R3 = independently ((cyclo)alkoxy)alkyl, alkenyl or aryl; R4 = alkyl, alkenyl, (cyclo)alkoxy, aryl; R5 = H, alkyl, alkenyl, (cyclo)alkoxy, aryl; R6 = H, (cyclo)alkyl, alkenyl, alkylcarbonyl; and pharmaceutically acceptable salts or solvates thereof] were prepared for treatment of impotence. For example, II was given in a multi-step synthesis starting from 4-amino-1-ethyl-3-propylpyrazole-5-carboxamide. I showed enhanced erectile response in rats similar to that of Sildenafil. Thus, I and their pharmaceutical compns. are useful for the treatment of impotence and sexlessness, having high selectivity over PDE V, long action time, less side reactions, and no side effects of blood pressure decreasing and heart rate increasing.

IT 856190-55-1P

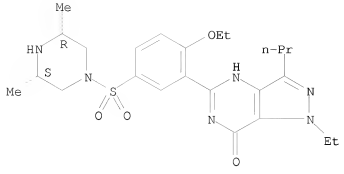
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrazolopyrimidinethione derivs. for treatment of impotence)

RN 856190-55-1 CAPLUS

CN Piperazine, 1-[[4-ethoxy-3-(1-ethyl-4,7-dihydro-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)phenyl]sulfonyl]-3,5-dimethyl-, (3R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:476529 CAPLUS
DOCUMENT NUMBER: 143:7736
TITLE: Preparation of piperazine derivatives for treating impotence
INVENTOR(S): Liu, Baoshun; Wang, Maotian
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, No pp. given
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1517349	A	20040804	CN 2003-100488	20030116
PRIORITY APPLN. INFO.:			CN 2003-100488	20030116

OTHER SOURCE(S): CASREACT 143:7736; MARPAT 143:7736
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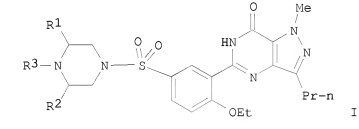

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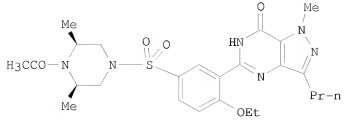


II

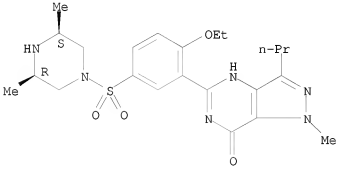
AB The title compds. I [wherein R1 and R2 = independently alkyl; R3 = acyl or dimethyl] or pharmaceutically acceptable salts or isomers thereof are prepared for the treatment of impotence. For example, the compound II was prepared II showed good result in treating impotence in rat.

IT 496835-35-9P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of piperazine derivs. for treating impotence)

RN 496835-35-9 CAPLUS

CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

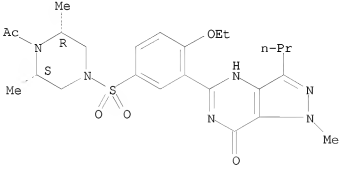


IT 852615-88-4P 852615-89-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of piperazine derivs. for treating impotence)

RN 852615-88-4 CAPLUS

CN Piperazine, 1-acetyl-4-[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-2,6-dimethyl-, (2R,6S)-rel- (9CI) (CA INDEX NAME)

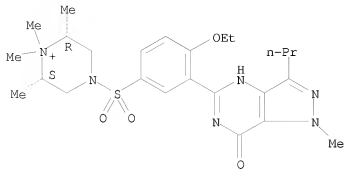
Relative stereochemistry.



RN 852615-89-5 CAPLUS

CN Piperazinium, 4-[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-1,1,2,6-tetramethyl-, (2R,6S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1009838 CAPLUS
DOCUMENT NUMBER: 142:392422
TITLE: Preparation of fused ring aromatic compounds for treatment of sexual disorders
INVENTOR(S): Lu, Derang; Li, Zhihai
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 15 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1472210	A	20040204	CN 2002-138880	20020802
PRIORITY APPLN. INFO.:			CN 2002-138880	20020802

OTHER SOURCE(S): MARPAT 142:392422
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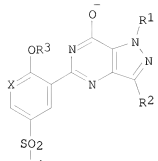

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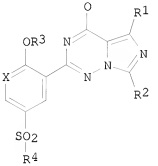
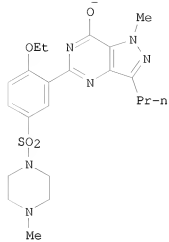


II



III

AB The title compds. I•N+R7R8R9R10 and II•NR7R8R9R10 [wherein R1 = H, alkyl, haloalkyl, or cycloalkyl; R2 = H, (un)substituted alkyl, haloalkyl, or cycloalkyl; R3 = H, (un)substituted alkyl, haloalkyl, cycloalkyl, alkenyl, or alkynyl; R4 = (un)substituted NH2 or piperazinyl; R7, - R10 = independently aryl or alkyl; X = CH or N] are prepared for the treatment of sexual disorders. For example, the compound III•N+Me3(CH2CH2OH) was prepared in a two-step synthesis in good yield. The title compds. showed strong effect on sexual disorders in rat.

IT 849915-00-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of fused ring aromatic compds. for treatment of sexual disorders)

RN 849915-00-0 CAPLUS

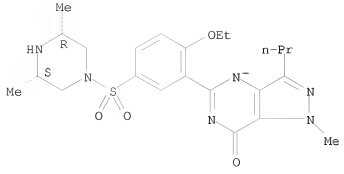
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, salt with rel-(3R,5S)-1-[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-3,5-dimethylpiperazine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 849914-99-4

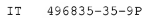
CMF C23 H31 N6 O4 S

Relative stereochemistry.



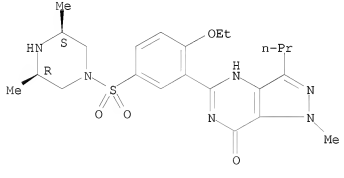
CM 2

CRN 62-49-7
CMF C5 H14 N O



IT 496835-35-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of fused ring aromatic compds. for treatment of sexual disorders)
RN 496835-35-9 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel-
(CA INDEX NAME)

Relative stereochemistry.

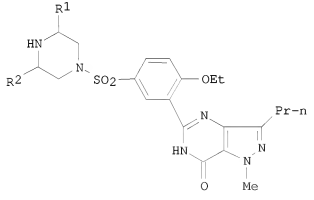


L9 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:154433 CAPLUS
DOCUMENT NUMBER: 138:153550
TITLE: Preparation of pyrazolopyrimidine derivatives for treatment of impotence
INVENTOR(S): Liu, Baoshun
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003016313	A1	20030227	WO 2002-CN433	20020621
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1393444	A	20030129	CN 2002-100198	20020118
CN 1127506	B	20031112		
CA 2451990	A1	20030227	CA 2002-2451990	20020621
AU 2002323774	A1	20030303	AU 2002-323774	20020621
EP 1400522	A1	20040324	EP 2002-754139	20020621
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002011025	A	20041019	BR 2002-11025	20020621
JP 2005500381	T	20050106	JP 2003-521235	20020621
NZ 530548	A	20050429	NZ 2002-530548	20020621
RU 2279433	C2	20060710	RU 2004-102513	20020621
HK 1053108	A1	20040402	HK 2003-105310	20030723
US 2004152709	A1	20040805	US 2003-736732	20031216
US 6960592	B2	20051101		
MX 2003PA11929	A	20050307	MX 2003-PA11929	20031218
IN 2003DN02254	A	20060120	IN 2003-DN2254	20031224
ZA 2004000692	A	20041014	ZA 2004-692	20040128
PRIORITY APPLN. INFO.:			CN 2001-129691 A	20010629
			CN 2002-100198 A	20020118
			WO 2002-CN433 W	20020621

OTHER SOURCE(S): CASREACT 138:153550; MARPAT 138:153550
GI

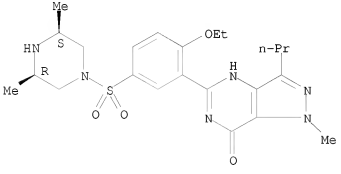


I

AB Title compound I (R1, R2 = alkyl) and their pharmaceutically acceptable salts or their configuration isomers., useful for treatment of impotence, are prepared Thus, I (R1 = R2 = Me) (II) was prepared in several steps from 2-ethoxybenzoic acid. II showed enhanced erectile response in rats similar to that of sildenafil.

IT 496835-35-9P
RL: ADV (Adverse effect, including toxicity); IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrazolopyrimidine derivs. for treatment of impotence)
RN 496835-35-9 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	45.45	394.18
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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NEWS 2 JAN 02 STN pricing information for 2008 now available
NEWS 3 JAN 16 CAS patent coverage enhanced to include exemplified prophetic substances

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NEWS  4  JAN 28  USPATFULL, USPAT2, and USPATOLD enhanced with new
                 custom IPC display formats
NEWS  5  JAN 28  MARPAT searching enhanced
NEWS  6  JAN 28  USGENE now provides USPTO sequence data within 3 days
                 of publication
NEWS  7  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
NEWS  8  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
NEWS  9  FEB 08  STN Express, Version 8.3, now available
NEWS 10  FEB 20  PCI now available as a replacement to DPCI
NEWS 11  FEB 25  IFIREF reloaded with enhancements
NEWS 12  FEB 25  IMSPRODUCT reloaded with enhancements
NEWS 13  FEB 29  WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                 U.S. National Patent Classification
NEWS 14  MAR 31  IFICDB, IFIPAT, and IFIUDB enhanced with new custom
                 IPC display formats
NEWS 15  MAR 31  CAS REGISTRY enhanced with additional experimental
                 spectra
NEWS 16  MAR 31  CA/CAplus and CASREACT patent number format for U.S.
                 applications updated
NEWS 17  MAR 31  LPCI now available as a replacement to LDPCI
NEWS 18  MAR 31  EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19  APR 04  STN AnaVist, Version 1, to be discontinued
NEWS 20  APR 15  WPIDS, WPINDEX, and WPIX enhanced with new
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NEWS 21  APR 28  EMBASE Controlled Term thesaurus enhanced
NEWS 22  APR 28  IMSRESEARCH reloaded with enhancements
NEWS 23  MAY 30  INPAFAMDB now available on STN for patent family
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NEWS 24  MAY 30  DGENE, PCTGEN, and USGENE enhanced with new homology
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NEWS 25  JUN 06  EPFULL enhanced with 260,000 English abstracts
NEWS 26  JUN 06  KOREAPAT updated with 41,000 documents
NEWS 27  JUN 13  USPATFULL and USPAT2 updated with 11-character
                 patent numbers for U.S. applications
NEWS 28  JUN 19  CAS REGISTRY includes selected substances from
                 web-based collections
NEWS 29  JUN 25  CA/CAplus and USPAT databases updated with IPC
                 reclassification data
NEWS 30  JUN 30  AEROSPACE enhanced with more than 1 million U.S.
                 patent records
NEWS 31  JUN 30  EMBASE, EMBAL, and LEMBASE updated with additional
                 options to display authors and affiliated
                 organizations
NEWS 32  JUN 30  STN on the Web enhanced with new STN AnaVist
                 Assistant and BLAST plug-in
NEWS 33  JUN 30  STN AnaVist enhanced with database content from EPFULL

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
             AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS    STN Operating Hours Plus Help Desk Availability
NEWS LOGIN    Welcome Banner and News Items
NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.
```

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:22:18 ON 01 JUL 2008

=> file registry
COST IN U.S. DOLLARS                                 SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                      0.21       0.21

FILE 'REGISTRY' ENTERED AT 16:22:30 ON 01 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   30 JUN 2008  HIGHEST RN 1031926-83-6
DICTIONARY FILE UPDATES:  30 JUN 2008  HIGHEST RN 1031926-83-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10 series\10583335\10583335d.str
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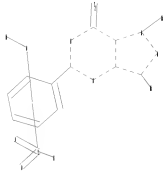
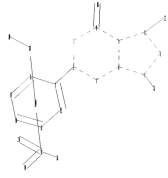




chain nodes :
10 17 18 19 20 21 22 24 26
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16
chain bonds :
2-11 4-10 7-22 9-21 17-26 17-18 17-19 20-24
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13 13-14 14-15
15-16
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 4-10 5-6 5-7 6-9 7-8 7-22 8-9 9-21 17-26 17-18
17-19 20-24
exact bonds :
2-11
normalized bonds :
11-12 11-16 12-13 13-14 14-15 15-16
isolated ring systems :
containing 1 : 11 :

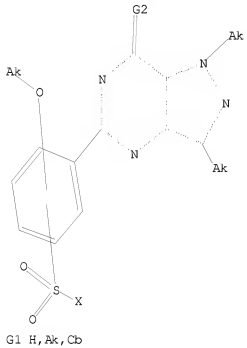
G1:H,Ak,Cb

G2:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 24:CLASS 26:CLASS 28:Atom 29:Atom

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 H,Ak,Cb
G2 O,S

Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 16:22:55 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 2 TO ITERATE

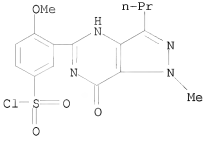
100.0% PROCESSED 2 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 2 TO 124
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> d scan

L2 1 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Benzenesulfonyl chloride, 3-(6,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxy-
MF C16 H17 Cl N4 O4 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

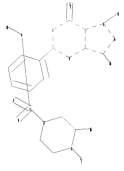
ALL ANSWERS HAVE BEEN SCANNED

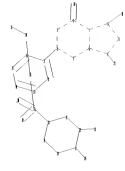
=> s l1 full
FULL SEARCH INITIATED 16:23:09 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 46 TO ITERATE

100.0% PROCESSED 46 ITERATIONS 24 ANSWERS
SEARCH TIME: 00.00.01

L3 24 SEA SSS FUL L1

=>
Uploading C:\Program Files\Stnexp\Queries\10 series\10583335\10583335e.str





chain nodes :
10 17 18 19 26 27 28 29 31 32
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 20 21 22 23 24 25
chain bonds :
2-11 4-10 7-28 9-27 17-20 17-18 17-19 22-32 23-29 26-31
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13 13-14 14-15
15-16 20-21 20-25 21-22 22-23 23-24 24-25
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 4-10 5-6 5-7 6-9 7-8 7-28 8-9 9-27 17-20 17-18
17-19 20-21 20-25 21-22 22-23 22-32 23-24 23-29 24-25 26-31
exact bonds :
2-11
normalized bonds :
11-12 11-16 12-13 13-14 14-15 15-16

```
isolated ring systems :
containing 1 : 11 :


G1:H,Ak,Cb

G2:O,S

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:CLASS
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:CLASS  18:CLASS  19:CLASS
20:Atom  21:Atom  22:Atom  23:Atom  24:Atom  25:Atom  26:CLASS  27:CLASS  28:CLASS
29:CLASS  31:CLASS  32:CLASS  35:Atom  36:Atom



L4      STRUCTURE UPLOADED

=> d l4
L4 HAS NO ANSWERS
L4              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l4
SAMPLE SEARCH INITIATED 16:23:37 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       60 TO ITERATE

100.0% PROCESSED       60 ITERATIONS                                1 ANSWERS
SEARCH TIME: 00.00.01

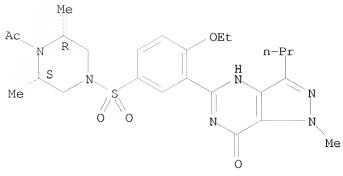
FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          736 TO     1664
PROJECTED ANSWERS:               1 TO       80

L5            1 SEA SSS SAM L4

=> d scan

L5   1 ANSWERS   REGISTRY  COPYRIGHT 2008 ACS on STN
IN   7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-4-acetyl-3,5-dimethyl-1-
     piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel-
MF   C25 H34 N6 O5 S

Relative stereochemistry.
```



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> s l4 full
FULL SEARCH INITIATED 16:23:49 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1194 TO ITERATE

100.0% PROCESSED 1194 ITERATIONS 13 ANSWERS
SEARCH TIME: 00.00.01

L6 13 SEA SSS FUL L4

=> file caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	356.72	356.93

FILE 'CAPLUS' ENTERED AT 16:23:57 ON 01 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 1 Jul 2008 VOL 149 ISS 1
FILE LAST UPDATED: 30 Jun 2008 (20080630/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html

```
=> s l3
L7          25 L3

=> s l3(1) ract+nt/rc
'RC' IS NOT A VALID FIELD CODE
           25 L3
            0 RACT+NT/RC
L8          0 L3(L) RACT+NT/RC

=> s l3(1) ract+nt/rl
           25 L3
      3126429 RACT+NT/RL  (10 TERMS)
L9          22 L3(L) RACT+NT/RL

=> s l10
L10 NOT FOUND
The L-number entered has not been defined in this session, or it
has been deleted.  To see the L-numbers currently defined in this
session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l6
L10          9 L6

=> s l6(1) prep+nt/rl
           9 L6
      4597436 PREP+NT/RL  (18 TERMS)
L11          4 L6(L) PREP+NT/RL

=> s l7 and l10
L12          2 L7 AND L10

=> s l9 and l11
L13          2 L9 AND L11

=> d l13 1-2 ibib hitstr

L13  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2005:570896  CAPLUS
DOCUMENT NUMBER:          143:97390
TITLE:                    Preparation of pyrazolopyrimidinethione derivatives
                          for treatment of impotence
INVENTOR(S):              Li, Shuxin; Ren, Jianping; Zhao, Yanjin; Lv, Qiujun;
                          Guo, Jinhua
PATENT ASSIGNEE(S):       The Institute of Radiation Medicine, Academy of
                          Miilitary Medical Sciences Pla, Peop. Rep. China
SOURCE:                   PCT Int. Appl., 34 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 Chinese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
     WO 2005058899        A1    20050630    WO 2004-CN1312         20041118
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CN 1629163	A	20050622	CN 2003-10118481		20031218
EP 1695976	A1	20060830	EP 2004-797343		20041118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS					
IN 2006MN00737	A	20070330	IN 2006-MN737		20060623
US 20070219220	A1	20070920	US 2007-583335		20070215
PRIORITY APPLN. INFO.:			CN 2003-10118481	A	20031218
			WO 2004-CN1312	W	20041118

OTHER SOURCE(S): CASREACT 143:97390; MARPAT 143:97390

IT 856190-47-1P

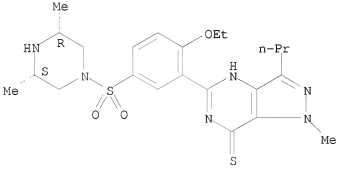
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrazolopyrimidinethione derivs. for treatment of impotence)

RN 856190-47-1 CAPLUS

CN 7H-Pyrazolo[4,3-d]pyrimidine-7-thione, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel-
(CA INDEX NAME)

Relative stereochemistry.



IT 856190-48-2P 856190-49-3P 856190-50-6P
856190-51-7P 856190-56-2P

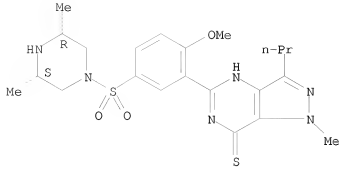
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrazolopyrimidinethione derivs. for treatment of impotence)

RN 856190-48-2 CAPLUS

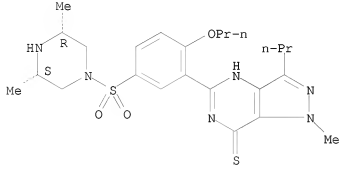
CN 7H-Pyrazolo[4,3-d]pyrimidine-7-thione, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-methoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



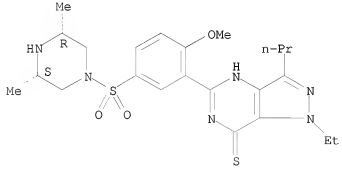
RN 856190-49-3 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidine-7-thione, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-propoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



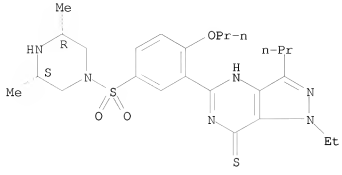
RN 856190-50-6 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidine-7-thione, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-methoxyphenyl]-1-ethyl-1,6-dihydro-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



RN 856190-51-7 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidine-7-thione, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-propoxyphenyl]-1-ethyl-1,6-dihydro-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

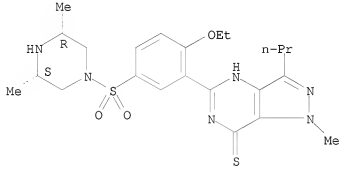


RN 856190-56-2 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidine-7-thione, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel-, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (CA INDEX NAME)

CM 1

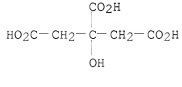
CRN 856190-47-1
CMF C23 H32 N6 O3 S2

Relative stereochemistry.



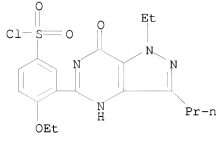
CM 2

CRN 77-92-9
CMF C6 H8 O7

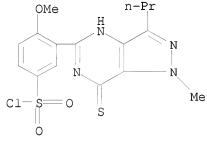


IT 139756-35-7P 479074-05-0P 479074-07-2P
856190-53-9P 856190-55-1P
RL: RCT (Reactant); SPN (Synthetic preparation);
PREP (Preparation); RACT (Reactant or reagent)
(preparation of pyrazolopyrimidinethione derivs. for treatment of impotence)
RN 139756-35-7 CAPLUS

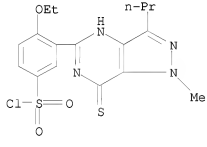
CN Benzenesulfonyl chloride, 4-ethoxy-3-(1-ethyl-4,7-dihydro-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)- (9CI) (CA INDEX NAME)



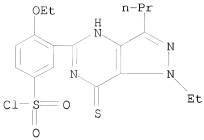
RN 479074-05-0 CAPLUS
CN Benzenesulfonyl chloride, 3-(6,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-methoxy- (CA INDEX NAME)



RN 479074-07-2 CAPLUS
CN Benzenesulfonyl chloride, 3-(6,7-dihydro-1-methyl-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxy- (CA INDEX NAME)

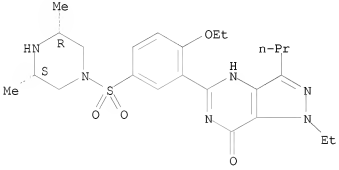


RN 856190-53-9 CAPLUS
CN Benzenesulfonyl chloride, 4-ethoxy-3-(1-ethyl-6,7-dihydro-3-propyl-7-thioxo-1H-pyrazolo[4,3-d]pyrimidin-5-yl)- (CA INDEX NAME)



RN 856190-55-1 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1-ethyl-1,6-dihydro-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1009838 CAPLUS
DOCUMENT NUMBER: 142:392422
TITLE: Preparation of fused ring aromatic compounds for treatment of sexual disorders
INVENTOR(S): Lu, Derang; Li, Zhihai
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 15 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1472210	A	20040204	CN 2002-138880	20020802

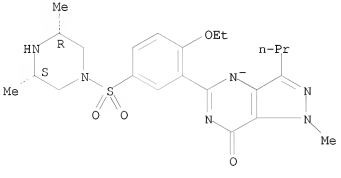
PRIORITY APPLN. INFO.: CN 2002-138880 20020802
OTHER SOURCE(S): MARPAT 142:392422
IT 849915-00-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of fused ring aromatic compds. for treatment of sexual disorders)

RN 849915-00-0 CAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, salt with 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-7H-pyrazolo[4,3-d]pyrimidin-7-one (1:1) (CA INDEX NAME)

CM 1

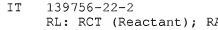
CRN 849914-99-4
CMF C23 H31 N6 O4 S

Relative stereochemistry.

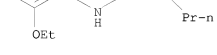


CM 2

CRN 62-49-7
CMF C5 H14 N O



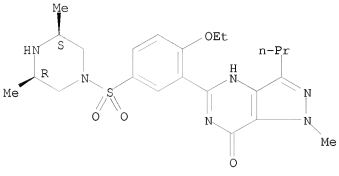
IT 139756-22-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of fused ring aromatic compds. for treatment of sexual disorders)
RN 139756-22-2 CAPLUS
CN Benzenesulfonyl chloride, 3-(6,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxy- (CA INDEX NAME)



IT 496835-35-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of fused ring aromatic compds. for treatment of sexual disorders)

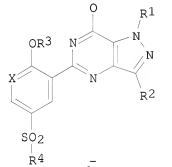
RN 496835-35-9 CAPLUS
CN 7H-Pyrazolo[4,3-d]pyrimidin-7-one, 5-[5-[[(3R,5S)-3,5-dimethyl-1-piperazinyl]sulfonyl]-2-ethoxyphenyl]-1,6-dihydro-1-methyl-3-propyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

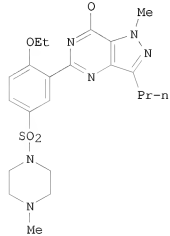


=> d l13 2 abs

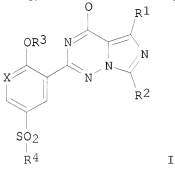
L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I



III



II

AB The title compds. I•N+R7R8R9R10 and II•NR7R8R9R10 [wherein R1 = H, alkyl, haloalkyl, or cycloalkyl; R2 = H, (un)substituted alkyl, haloalkyl, or cycloalkyl; R3 = H, (un)substituted alkyl, haloalkyl, cycloalkyl, alkenyl, or alkynyl; R4 = (un)substituted NH2 or piperazinyl; R7, - R10 =

independently aryl or alkyl; X = CH or N] are prepared for the treatment of sexual disorders. For example, the compound III•N+Me3(CH2CH2OH) was prepared in a two-step synthesis in good yield. The title compds. showed strong effect on sexual disorders in rat.

=> log hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	27.36	384.29
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.80	-0.80

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 16:41:07 ON 01 JUL 2008